

Do No Harm

*A Submission to the
British Columbia Conversation
on Health*

From the AD-AV Society of B.C.

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Executive Summary

Looking toward ensuring a vital, economically sound health care system for the benefit of all British Columbians, The AD-AV Society of B.C. advocates a new, more enlightened approach to the funding of medical research.

It is proposed that the private sector be encouraged to participate in innovative research and that all levels of government confine spending on health care to the delivery of existing and developmental treatments, services and resources to the patient.

Further, we commend the Council on Humane Giving's Humane Seal program as the best way of ensuring a policy of support for humane health promotion practices.

It is hoped to bring to the Conversation on Health the scientific argument against permitting the ongoing type of costly research that puts at risk the health, safety and well-being of British Columbians.

In a recent TMS Healthcare survey of family practitioners in the U. K., a staggering level of distrust in established scientific testing practices was revealed.

Of those polled:

83% would support an independent scientific evaluation of the clinical relevance of animal experimentation

only 21% would have more confidence in animal tests for new drugs than in a battery of human-based safety tests

82% were concerned that animal-based data can be misleading when applied to the human patient.

It would be easy to dismiss such claims as belonging to the animal welfare movement were we to disregard the empirical evidence of the dangers of extrapolating between species and the status of the voices sounding their opposition to such ongoing practice.

Serious adverse drug reactions are now recognized as the 4th leading cause of death in the U.K. In light of a number of recent catastrophes such as Vioxx, considered the biggest drug disaster in history despite its proven safety in primates, many leading scientists are questioning our continued reliance on animal testing now that superior, human-based methods are available.

And that is why it is imperative that we learn the actual scientific argument against the well-intentioned funding of an increasingly obsolete, increasingly life-endangering system of discovery.

The Facts:

“My own conviction is that the study of human physiology by way of experiments on animals is the most grotesque and fantastic error ever committed in the whole range of human intellectual activity.”

Dr. G.F. Walker, ‘Medical World’

“The idea, as I understand it, is that fundamental truths are revealed in laboratory experimentation on lower animals and are then applied to the problem of the sick patient. Having been myself trained as a physiologist, I feel in a way competent to assess such a claim. It is complete nonsense.”

*Sir George Pickering, Regius Professor
of Medicine at Oxford University,
‘British Medical Journal’, 12/26/1964*

“I know of no achievement... no scientific discovery,
that could not have been obtained without (vivisection).”

Dr. Charles Mayo, co-founder, Mayo Clinic

The above are statements from some of the foremost minds in the field of medicine. They would urge us to consider that the average human life span having increased from 45 to 70 years in the past century, the combined benefits of improved hygiene, a higher level of affluence and better nutrition are as important a factor in the withdrawal of disease as are biomedical advances. In fact, the director of the Pediatric Clinic at the University of Rome, Professor Arrigo Colarizi, went as far as to state that: “The physical improvement we notice is partly spontaneous and partly due to the improved social, economic and hygienic conditions. Drugs have nothing to do with it.”

But for vaccines derived from diseased animal tissues, scientists might have provided decades earlier the less dangerous human diploid cell strains developed by Leonard L. Hayflick of Philadelphia’s Wistar Institute and later Stanford University. When it is claimed that animal research resulted in the prevention of diseases such as polio, measles, whooping cough and diphtheria through the development of vaccine, it must also be noted that the same vaccine may have presented drawbacks equally as devastating as the disease it targeted. Regarding the danger of smallpox vaccination: “The vaccine modifies the terrain of the vaccinated, driving it towards alkaline and oxydized terrain - the terrain of cancer.”

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In the U.S., the pertussis vaccine tested well in rats and mice for over 40 years. But its makers have paid out more than \$12 million in claims for children who died or were brain-damaged by its use. British statistics reveal that polio had gradually been diminishing in incidence from year to year - from 39 cases per 100,000 in 1942 to only 15 cases in 1952, the year the vaccine went into effect. Since then, the British Public Health Laboratories have acknowledged that approximately half the cases of polio in Britain have been caused by the animal-based vaccine itself. A Danish study showed that people who had measles - vaccine-induced antibodies in the bloodstream later developed more arthritic and bone problems, skin diseases and cancer than those who had had the measles. The same vaccine is also under scrutiny as a cause of MS.... which all suggests that the so-considered miracle of diseased animal tissue-derived vaccine itself be put under the microscope, for further scrutiny.

Antibiotics developed with the use of laboratory animals are credited with our surviving, without permanent harm, the incidence of strep throat, ear infection, bronchitis, pneumonia. Yet according to the Bulletin de l'Association Generale des Medicines de France, "Current therapies carry definitely the heavy and tragic responsibility of having generalized and aggravating the staphylococcal pathology, whereas they were destined, at the outset, to eliminate them."

"Fungal infections in many may occur in the brain, lungs, gut, kidneys, skin, and are increasingly common since the antibiotics kill the bacteria which normally inhibit the growth of fungi...."

Dr. Franklin Bicknell, Australia

"The antibiotic drug Chloramphenicol was recorded as a cause of fatal aplastic anemia in human beings. But extensive experiments on dogs had failed to show any evidence of injury or disease."

'Bulletin', Easton, Mass. April 2/53

If we are to hold fast to our belief that antibiotics are vital to our survival, then we should be aware that the foremost of these, penicillin, was almost discarded when research showed it to be highly toxic to guinea pigs, and to cats.

Portentously, Dr. Fleming did not wait for the results of his animal experiments before trying it out on human patients.

Why Test New Drugs on Animals?

“There really exists no logical basis for translating the results in animals to Man.”

Dr. L. Goldberg, Karolinska Institute, Sweden

“Animal models differ from their human counterparts. Conclusions drawn from animal research... delay, mislead and do harm to the patient. Animal experiments inevitably lead to human experimentation.”

Dr. Moneim Fadali in 'Heart Research on Animals' by Brandon Reines

To capsualize:

Over 30,000 people were seriously damaged in Japan after taking the diarrhea medication Clioquinol. Rats and mice had suffered no effects during testing. It is now known that they metabolize the drug differently from humans.

Aerosol-pressured dilators caused 1,700 deaths in one year in the U.K. The drug Isoproterenol packaged as an aerosol-pressured dilator was for a time considered the worst therapeutic drug disaster on record.

Reserpine, a common drug used for high blood pressure, and which was tested by driving cats insane with electric shocks, was deemed safe for human use: it is now linked with such serious complications as depression, angina, glaucoma, impotence, irregular heart beat.

The arthritis drug Opren, which tested safe on animals in the laboratory, caused liver damage and over 60 deaths in Britain before being withdrawn.

Animal studies failed to reveal heart abnormalities, but clinical usage showed the danger of heart valve defects from combining the approved prescription drugs Fenduramine and Dexfenfluramine (Fen-Phen), both withdrawn in 1997.

Fialuridine, a hepatitis drug, tested well on animals but actually caused liver failure in humans.

Practolol was withdrawn following a range of dangerous side-effects -- among them peritonitis, corneal damage, conjunctivitis -- all completely unforetold by the required pre-release animal testing.

And the list goes on....

Introduction of blood transfusion was delayed for more than two centuries due to the misleading conclusions drawn from animal experiments. Direct observation of humans by Karl Landsteiner led to the identification of the various blood groups, allowing safe blood transfusions to commence.

Corneal transplants were delayed for nearly 90 years by the erroneous results of animal testing.

After 25 years of struggling to replicate polio in monkeys, scientists finally examined how the virus enters the human system and thus developed an oral vaccine.

The valuable anaesthetic Chloroform was for some time completely discarded due to its toxicity to dogs.

Amyl nitrate increases the inner pressure of animals' eyes. By contrast, it reduces the pressure of the human eye. For 50 years, this valuable medicament in the treatment of certain eye diseases was ignored due to the erroneous results of vivisection.

Development of artificial mitral valves was retarded by fatal blood clotting which almost always occurred when the valves were tested on laboratory dogs. Later human trials on the caged-ball type of valve proved successful.

Aspirin causes birth defects in rats, mice, guinea pigs, cats and dogs; Digitalis dangerously raises the blood pressure of dogs and so for many years this vital medication went unused. Tragically, unknown to us is the number of beneficial compounds and effective therapies that have been disqualified due to their unworkability in an animal model 'standing in' for the human being.

“The discovery of anaesthetic owes nothing to experiments on animals.”

Report of Royal Commission on Vivisection

“Animal studies are done for legal reasons and not for scientific reasons.”

*Dr. James Gallagher, Director of Medical
Research, Lederle Laboratories*

“If we halted research using animals today, the results would be immediate and beneficial.”

*Dr. R.S. Mendelsohn, ‘Confessions of
a Medical Heretic’*

Investigators seek a model of the human condition they study.

...And yet, examine the differences:

Mice and rats have no gall bladder and digest fats differently; require 3.5 times more protein than does man; have plaque deposits in liver; chloroform is toxic to them in minute doses; Thalidomide does not cause them to suffer birth defects, while Meclazine, Imuran and Myambutol do; their 3 year life span requires massive dosing for drug/product testing. In addition, chemotherapy does not affect the kidney as it does in man, and in the mouse most cancers arise in bone, connective tissue or muscles (sarcoma), while most human cancers arise in lining membranes (carcinomas). Chairman David Korn of the U.S. National Cancer Institute’s Advisory Board reported that “For 35 years...(we have) injected more than 400,000 chemicals into leukemic mice, hoping to find chemotherapies that would help solve the riddles of cancer.... We’ve been using the wrong system as the screening device.” Many potential cancer-fighting drugs currently being tested on real human cancer cells failed when tested on mice.

Rabbits are perennially popular for household and cosmetic product testing as well as for medical research specifically because their eyes cannot make tears to flush out harmful compounds, and their docile nature makes them the ideal candidate for all types of shaved-skin experiments. On the minus side, they thrive on deadly (to humans) amanita mushroom, are poisoned by penicillin, and cannot be infected in the conjunctiva. Eraldin, which

was withdrawn in 1976, caused humans severe eye damage, blindness, even death, despite being proven safe for rabbits and other species during seven years of intensive and frankly gruesome animal testing. Tagamet, which caused stomach cancer in humans, gave no indication of such complications when tested on rabbits. (This incident was noted by the U.K. Committee on the Safety of Medicines as casting doubt “on the whole basis on which we determine drug safety”.) Regarding Draize and LD-50 product testing, Dr. Richard San, chief of the Carcinogen Testing Laboratory of the B.C. Cancer Research Centre several years ago reported: “I don’t see any justification today for resorting to such tests. The information can readily be obtained using assays and cultures.”

Toward the end of the 1990’s, Great Britain became the first Western nation to impose a total ban on cosmetic testing on animals: it would seem both appropriate and beneficial for Canada to follow suit.

Cats are used for some of the most severe types of experiment, even though their nervous system is radically different to that of man’s, and they will often give different results from one another, even from kitten to full-grown cat. Movalgen, Aspirin and lemons can be fatal to cats, while they remain unaffected by botulin and Scopolamine, can lap up powdered glass and can thrive on a Vitamin C deficient diet. They are difficult to anaesthetize for even 10 minutes. And although most of the work on brain research has been done on cats and monkeys, “It is risky to extrapolate such data to the human brain.”

*Scientist W.H. Wheeler writing in
‘Science Digest’, 11/92*

The extensive use of cats in spinal cord research, due to their exceptional resilience and their ability to withstand acute traumatic injury, and regardless of major anatomical differences between cat and human being, definitely calls the credibility of such research into question:

“In the end, we might be able to cure the cat model but it might have nothing to do with the patient situation.”

*Dr. Eugene Flamm, vice-chairman of the Dept.
of Neurosurgery at NYU Medical Centre*

Dogs, too, have for over two centuries been probed in effort to explore the innermost workings of the human being. Yet in the 1600's William Harvey had studied the heart and blood circulation without the side-tracking recourse to animal experiment. Da Vinci focused on these integral human workings too. He recognized that the basis of the two great arteries through which the blood issues from the heart are provided with valves that prevent the blood from inverting its course and returning to the heart. But now the dog is frequently used in cardiac and blood pressure research despite its stark difference to the human system. Dogs' hearts have a highly irregular intermittent pulsation - it is said there is in fact a no less reliable guide to man's heart than the dog.

“As for bypass surgery, animal research actually retarded this therapy for humans. Because a dog's clotting characteristics and coronary values are so different from ours, the initial human patients died. The first success was Dr. Kunlin's work in France. Dr. Kunlin's work was clinical and had nothing to do with animal research.”

Dr. M. Beddow Bayly, "Clinical Medical Discoveries"

“The arguments from quadrupeds to man as to the power of the heart and pressure in the blood vessels are fallacious, for those physical reasons which bring about a difference in the circulatory apparatus of animals habitually and respectively horizontal and erect.”

Dr. A. Morison FRCP, BMJ

“Attempts to cause strokes in animals are highly artificial and can send armies of researchers down blind alleys, wasting precious time and money.”

David O. Wiebers, the Mayo Clinic

The anti-inflammatory Phenylbutazone can be administered to dogs in high doses, which would poison the human system. Dogs' skin tissues are tougher than ours: a burn on a dog is not the same as on a human. Dog fractures are different to ours. Crushing the joints of a healthy dog cannot reliably simulate the arthritic condition in the human being, though much arthritis research centers on just such course of action.

Around 1954, Dr. Harold Okens, Professor of Anatomy at the University of Copenhagen, categorically prohibited experiments on dogs: his opinion was that such experiments should be forbidden by law.

(In Great Britain, surgeons gain experience solely on human patients; under the Cruelty to Animals Act of 1876, it is disallowed to experiment on animals for purposes of attaining manual skill.)

“I have never known a single surgeon who has learned anything from vivisection.”

*Dr. Abel Desjardins, President,
Society of Surgeons, Paris*

The claim that research on thousands of dogs by Banting proved valuable to human medicine are erroneous. It is scientifically recognized that the discovery, isolation to application of insulin was a clinical one. The means of separating from the pancreas the active principle, designated by the renowned physiologist Professor Schafer in 1915 as insulin, was merely repeated by Banting in his depancreatized animals.

The foreign nature of animal-based insulin with its accompanying severe side-effects - including heart attack, stroke, kidney failure - has since been replaced by pure chemicals. And yet more people per capita are dying of diabetes today than in 1900, years before the discovery of insulin....

...In human diabetes two factors are present: 1) an essentially progressive lesion absent in experimental animals; and 2) the detrimental effect of improper diet.

Much of the work on brain trauma has been conducted on non-human primates although it is acknowledged to be risky at the least to extrapolate any such data to the human brain. Primates are used in spinal cord research where the number of variables (site of injury - cervical, thoracic, lumbar- advent and duration of pharmacological intervention, and measure of outcome - morphological change, function, blood flow change etc.) makes it less than surprising that no therapy has yet proven effective across experimental labs, let alone in human treatment.

Primates are commonly forcibly addicted to alcohol, drugs and tobacco, despite being abstemious by nature; they then must undergo symptoms of withdrawal. Yet the effects of these addictive compounds are already well-detailed, in the toll on both the human victim and society.

As disconcerting as any is the use of chimpanzees in AIDS research. Precious dollars are spent endeavoring to induce HIV in sterile-isolate

held animals, regardless of the fact that they can not develop full-blown AIDS. Effective anti-HIV drugs were conceived and developed using *in vitro* and *in silico* (computer) methods, without reliance on animal models.

Pigs have long borne the brunt not only of military and safety testing, but of burn research (even though the human placenta carries far greater potential for accuracy). In one year alone in the UK, over 1000 animals were burnt, over 5,000 suffered other forms of physical trauma to simulate human injury. As noted by Geraldine Dyson R.N.: “...One has to ask why so much government funding goes into reproducing these (type of) accidents in animals.... It is expensive to the taxpayer, agony to the animals and impedes the real progress by using animal data which is often dangerously misleading. My message to you is - animal experimentation can seriously damage your health.” Pigs are also to be found in the arena of xenotransplantation, despite evidence that the porcine endogenous retrovirus (PERV) is produced by cells from pig parts commonly used in transplants. It is expected that unknown other animal viruses or diseases will be transmitted to humans through organ transplant. The human patient could then transmit this new cross-species disease to other humans.

Dr. Abdallah Darr, chair of a WHO committee on the issue, favours the procedure but concedes that there is risk that “a major epidemic could ensue.” Which leads one to query the scientific naivete that leaves us vulnerable to such previously unencountered dangers to human health.

“Usually, the terrible things that happen in the name of progress are not really progress at all, but terrible things.”

Russell Baker

Myth vs. Fact:

“Other research methods cannot replace animal use.”

Fact: Exciting technological techniques do exist and greater effort needs to be made by governments, universities, industrial and all research institutions to adopt these alternatives. They include:

- The use of inanimate models and computer simulation
- Epidemiological surveys in human medicine
- The use of human volunteers in sub-critical studies
- Chromatography and mass spectrometry
- Use of cell, tissue and organ cultures
- Computer-generated rational drug design
- The mathematical bridge
- In vitro tests
- The Eyetex method
- Sensitive placenta tissue for toxins

New drugs can be developed exclusively using human tissues and computer technologies - we can investigate how the drugs affect the actions of human genes or the proteins they make.

In MEIC tests, researchers found lethal dose tests far less effective than a combined human cell test, which was 83% accurate in predicting actual human toxicity. A far-sighted report by the NRC, June 12th, 2007, sets out a vision for 21st century toxicology using alternative tests that are not only more humane but are also faster, cheaper and more accurate than their animal counterparts.

“Every year laboratories introduce thousands of new chemical compounds using animals to test each individual substance can run into thousands of dollars.... (a) computer can test each chemical for \$150.”

*Dr. Charles De Lisi, Biophysicist at the
National Cancer Institute, Bethesda, MD*

“Laboratory research with animals is biomedically necessary.”

Fact: It is impossible to recreate a naturally-occurring human disease in an animal apart from a reproduction of symptoms. It has been proven improvident to predict human reactions to pharmaceuticals and other chemicals by testing on animals. It is impractical to teach human anatomy and physiology through the study of quadrupeds, fish and birds. Each species is a unique biomechanical and biochemical entity. Therefore the ideal animal ‘stand-in’ for the human being simply does not exist.

“Medical breakthroughs have all been made possible through animal research.”

Here we will explore the intriguing facts behind much of the progress we have seen to date:

Heart Transplant: Experiments on dogs to develop transplant techniques resulted in the deaths of the first human patients (1); by 1980, 65% of patients survived more than a year as a result of increased skill gained through clinical experience (2)

Ventilation of Open Thorax: Dr. Ivan Magill and Dr. E.S. Rowbotham developed the technique of delivering anaesthetic gas through a single endotracheal tube under positive pressure controlled by the patient’s breathing. They performed no animal experiments (3)

Defibrillation: Clinician Dr. P. Zoll developed closed chest resuscitation on patients in 1956. The animal research conducted by Dr. William B. Kouwenhoven of John’s Hopkins University has been falsely credited with the advance (4)

Myocardial Preservation Techniques: Scientists at the Middlesex Hospital and Medical School have isolated human heart cells from heart muscle for use in research and the preservation of myocardial tissue for cardiac surgery - the advantage to research is that results are directly applicable to patients because as the researchers stated: “...it is difficult and often misleading to extrapolate results in animal

tissues to man”(5)

Pacemaker: The development of artificial pacemakers for complete heart block grew out of direct studies of human patients suffering from ventricular septal defect. Earlier techniques which had tested well on dogs were discarded once in use on humans due to many problems.

Caged Ball Valve: ...and of course we have seen that Dr's Starr and Edward almost discarded the caged ball valve as it killed the dogs in their experiments. It was, however, successful in the human being (6)

In regard to treatment for:

Blue Babies: In the 1940's, surgeon Alfred Blalock announced he had found it impossible to accurately recreate all four human congenital heart defects, nor anything even vaguely resembling an animal model of a blue baby. He and Dr. Helen Taussig of John Hopkins Hospital then set about devising an operation without the use of animals, as did Dr. R.C. Brock of Guy's Hospital whose work was hailed as a success, and Dr.'s N.R. Barratt and Raymond Daley of St. Thomas' Hospital, London which last was an improvement on all other techniques (7). It is erroneously believed that the blue babies operation was a triumph of animal research, when the honest appraisal would be that “the use of dogs in Blalock's initial “blue baby” experiments... considerably set back progress.” (8)

Arthritis: Studies of arthritis have somehow digressed to the injection of materials into the muscles or joints, or the implementation of crushing or other traumatic injuries, intended to simulate the arthritic condition in animals. At its best, this is a misguided approach, as in humans the disease is not the consequence of injection or arbitrary injury (9)

The best that medical research can thus far offer are palliatives that mask symptoms, relieving pain for the short term while simultaneously destroying internal organs or the cornea, causing even greater harm to the system than the original disease whose effects they were meant to alleviate.

“A better way to study arthritis with a view to curing it is the examination of arthritic cartilage normally removed from human patients in surgery. This abnormal cartilage can be kept alive in the laboratory for several days or weeks, during which its reactions to various drugs can be observed.” (10)

Tested as safe on animals, a number of arthritis drugs - Opren, Vioxx, Tanderil, Ibuprofen, Butazolidin among them - were subsequently removed from the market following serious side effects. In the case of Opren, introduced in 1980, 61 deaths and 3,000 drastic adverse reactions resulted from the product which had been shown, experimentally, to actually modify the arthritic disease process. This claim was based on the observation that Butazolidin inhibited the development of adjuvant-induced arthritis in the rat, but “failed to mention that other non-steroidal anti-inflammatories had similar actions or that beneficial effects shown in rats have only a limited ability to predict efficacy in humans.”(11)

Vioxx and other COX-2 drugs were shown to have a heart-protective effect on mice and other animals. Once clinical trials started revealing the drugs caused heart problems in humans, the pharmaceutical companies pointed to the animal tests to prove the drugs were safe, with tragic consequences.

Multiple Sclerosis: “MS does not occur in animals. Ultimately, then, definitive research on MS must be done with humans.”(13) Clinical observation suggests that MS is caused by a breakdown of the blood-brain barrier, allowing penetration of inflammatory cells into the central nervous system. Science has attempted to recreate the inflammation of the brain through repeated injection into animals: the experimental disease is called EAE (experimental allergic encephalomyelitis)(14). But the damage caused by EAE is known to be different, and different animal species differ in susceptibility to the disease.

There are crucial differences between MS and EAE. While EAE is an artificial disorder induced in lab animals by means of an adjuvant of infected tissue and bacterium, “MS is a naturally occurring human illness caused by as yet unidentified genetic and environmental factors.”(15) An editorial in the British Medical Journal emphasizes

that clinical research must be the way forward in such a disease:
 “The attack on MS should use the classic epidemiological model of agent, host and environment. Research that allows for interplay among these factors is likely to be most productive.”(16)

Stroke: “One way that researchers simulate stroke is by application of microsurgical spring clips to an artery. The clipping itself affects blood vessels in ways totally artificial and never seen in blood vessels of human stroke patients.”(17)

Samuel Neff of the New England Medical Centre stated: “The repeated failure of laboratory-proven stroke therapies in human beings can be due only to the inapplicability of animal models to human cerebrovascular disease.” Animals, unlike humans, have a collateral vascular system in their brains which allows the bypass of clots: in addition, many animals have a remarkable system of blood vessels which effectively filters out blood clots and other substances that might otherwise flow to the brain.

In ‘Stroke’ of January 1990 was published a comprehensive article by Dr. David O. Wiebers and his associates at the Mayo Clinic and the University of Iowa, in which the relevance of information gleaned from animal experiments was termed “dubious”. In a review of experimental treatments for stroke in the preceding decade he wrote:

Of 25 treatments which worked in animals, not a single one worked in human studies

Human strokes are complicated by underlying arteriosclerosis, genetic factors, chronic hypertension, diabetes, smoking and medications, all of which can have important effects and cannot be duplicated in animal studies.

Basic physiology tells us there is no suitable animal model for strokes.(18)

HRT (Hormone Replacement Therapy) was found to be protective against heart and stroke in non-human primates, but actually increases the risk in humans.

Cancer: Perhaps no branch of research has expended more money and effort than has the world-wide crusade against cancer. The mounting toll of casualties falls far short of the lofty mark of finally winning ‘The War on Cancer.’

“It is not possible to apply to the human species experimental information derived from inducing cancer in animals.”

NSW Cancer Council

“There is no animal model system that comes anywhere close to being a model of the human cancer process. It does no good to put human cells in animal systems or to use primates as hosts. The biochemical environment of the model is completely different to that of the human host. The animal model systems are merely a bad analogy, and reasoning from a bad analogy is fallacious in logic and science.”(19)

Animal models are useless for studying the spread of human cancer. In other words, the key to halting the spread of cancer in the human body is understanding where and when cancer spreads in the human body. (In fact, most lab animal cancers do not spread at all.) There is little doubt that the key to improving the cure rate for most of the common solid tumors is to elucidate the pathways and kinetics of the metastatic process in humans.

Certain forms of cancer are now curable with drug combinations that were discovered by clinical human studies. (The U.S. National Cancer Institute reports the success rate of random screening on rodents at only 0.0001.) And the main incentive for attempting adjuvant chemotherapy resulted from long-standing clinical observation of the human metastasis process, not from animal research as commonly believed.(20)

According to the W.H.O., at least 80-90% of cancers are due to environmental poisons. Carcinogenic material is now in the air we breathe, in the food we eat, the water we drink, certain medications, exogenous hormones, x-rays, and the list goes on. It will now be impossible to remove all carcinogens from our environment but 50-60% could be eliminated.(21)

Animal testing for carcinogens is a tortuously slow process that could be replaced by bacteria-based Ames testing at an infinitely lower cost in terms of both time and precious dollars, as well as human lives.

“From the history of chemical carcinogen detection, it is clear that animal tests have never prevented a single human being from being exposed to a cancer-causing substance. For example, in 1982 the U.S. Occupational Safety and Health Administration proposed a more stringent standard for worker exposure to benzene - a known human carcinogen - but this was rejected by the Supreme Court and the scientific community at large. The last were reluctant to categorize benzene as carcinogen as there had been no published reports that it caused cancer in rodents.”(22)

Regarding the breast cancer drug 5FU, Dr. Irwin J. Bross wrote in ‘Experimental and Applied Toxicology’, 1/2/83:

“My effort to head off the poisoning of hundreds of women with breast cancer by a dangerous drug, that could destroy their host defence systems, failed. The National Cancer Institute went right ahead. Not a few women with breast cancer have paid with their lives for this....”

Regarding Prednisone and the Vinca alkaloids, so effective against acute lymphocytic leukemia:

“Both were rejected by the NCI as ‘useless’ on the basis of animal tests. Prednisone was developed as a result of clinical observation of the effects of adrenal extract, and is actually one of the few truly curative drugs. Vincristine is an alkaloid of ‘Vinca Rosea’, a type of periwinkle, extracts of which plant were already used in the Roman Empire to “dry tumors” (Pliny). The NCI rejected Vinca extract on the basis of its animal tests. Clearly, the children cured of leukemia owe their lives to bold and intelligent clinical thought, not to the NCI’s mice.”

Brandon Reines, DVM “Flaws in Cancer Research”

In 1773, the Academy of Science in Lyon, France awarded a prize to Bernard Peyrilhe for the best original essay on the subject: “What is Cancer?”

“Thus began more than 200 years of confused scientific experimentation on dogs and other animals, confused in that there is no animal model system which resembles the human cancer process.”

Dr. Irwin J. Bross, Ph.D.

(Dr. Bross is former head of Research Design and Analysis of Sloan-Kettering Cancer Institute, and initiator of the controlled clinical trials that led to the first cures of childhood leukemia. He is an avowed anti-vivisectionist.)

Due to biochemical, neurological and physiological differences between species, the reliability of organ culture techniques far exceeds the hit and miss aspects of cancer research based upon animals. Yet while patients must wait for treatment, researchers are able to access a seemingly illimitable supply of funding with minimal accountability required.

An ounce of Prevention being worth what it is, the collaborative effort of physicians, researchers and nutritionists to educate the public on the benefits of a healthy diet and lifestyle for cancer prevention and survival is encouraged and would ideally be endorsed by our Health Ministry.

“The recent study by the Canadian Cancer Research Alliance... stating that only 2% of research is directed to cancer prevention, is in stark contrast with the evidence that up to two-thirds of cancers are preventable with sustained programs aimed at tobacco control, physical inactivity, unhealthy body weights and poor nutrition.

In an era of evidence-based decision-making, would it not make more sense to give greater research emphasis (funding) to understanding what is needed to put prevention into practice. What is the story behind this imbalance in research funding?

*Dr. Harvey A. Skinner, Faculty of Health,
York University, Toronto*

In Conclusion:

As we review the data, it becomes achingly apparent that in the past two centuries - since the emergence of live animal research - we have done more to damage our environment, our fellow beings and ourselves than in all preceding millenia.

We now know that adverse drug reactions kill in the hundreds of thousands of those in the Western Hemisphere every year, but how is this to be foretold when we can't truly know whether the patient's response will streamline with that of the beagle dog, or of the guinea pig? As the illumined professionals quoted within this report concur, no drug-, surgical-, or substance-testing results can successfully be extrapolated from one species to another. Not only is the patient left to guess at how a given compound might affect him, or to which of the toxic side-effects he might be prone, countless "laboratory" animals are maimed and destroyed each year in heartbreaking futility.

Analytical science as it stands comes at enormous human cost. It is our responsibility to rectify our misdirection and set out on a truer road to health protection. As stated earlier, we can accomplish this by co-ordinating and implementing advances in technology and science, along with human clinical studies, with an exploration of the answers which remain to be provided by the natural world - only awaiting our matured ability to seek without destruction.

For both ethical and scientific reasons, it is imperative we study naturally occurring maladies and restore to medical research the level of idealism and compassion that was extolled by Hippocrates, and from which we have fallen immeasurably far. The HumaneSeal programme initiated by the Physicians Committee for Responsible Medicine (www.pcrm.org or www.HumaneSeal.org) may be the best means for government, foundations and the public to ensure that their financial contributions will be committed toward vital services, prevention programs and research meeting only the most stringent standards.

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